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The price of industrial influence in EU PFAS regulation

Malin Johansson and Maria Pettersson

Department of Social Sciences, Technology and Arts, Luleå University of Technology, Sweden

1. INTRODUCTION

Per- and polyfluoroalkyl substances (PFAS) represent a family of over 10,000 synthetic chemicals characterized by strong carbon-fluorine bonds that make them extraordinarily persistent in the environment. These "forever chemicals" have been widely used since the 1950s across an expansive range of industrial and consumer applications—nonstick cookware, water-resistant textiles, firefighting foams, and semiconductor manufacturing, among many others (Glüge et al., 2020; Buck et al., 2011). What makes PFAS particularly concerning is not merely their ubiquity, but the combination of their environmental persistence with mounting evidence of bioaccumulation and links to serious health effects including cancer, immune system dysfunction, and reproductive disorders. The extreme resistance to degradation means that even if all PFAS uses were phased out today, environmental contamination would persist for generations (Dobrzyńska et al. 2025; Cousins et al., 2020).

Currently, the EU regulates PFAS one substance at a time. While three PFAS are banned under the POPs Regulation (Regulation (EU) 2022/2400) and several others are listed as substances of very high concern under the EU's chemical regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) (Regulation (EC) No 1907/2006), the vast majority of the 10,000+ PFAS remain unregulated. Globally, conflicts over PFAS cleanup liability are increasing—in courtrooms, in settlements, and in political negotiations over who bears the cost of remediation. Legal judgments, however, cannot undo environmental contamination. Without comprehensive restriction, PFAS will continue accumulating in nature faster than remediation efforts can address it.

In early 2023, five European countries—Denmark, Germany, the Netherlands, Norway, and Sweden—submitted a proposal to the European Chemicals Agency (ECHA) for a universal restriction of PFAS under REACH. This proposal seeks to ban the entire PFAS family, with limited derogations until alternatives can be developed (ECHA, 2025). The scope and ambition of this restriction are unprecedented in chemical regulation history. During ECHA's public consultation period in 2023, the agency received over 5,600 submissions—a record number reflecting the profound societal and economic implications of regulating an entire chemical class.

Yet the formal consultation process tells only part of the story. The proposal has triggered an intensive lobbying campaign. The Forever Lobbying Project, a cross-border journalistic investigation involving 46 journalists across 16 countries, has documented this campaign, collecting over 14,000 documents related to industry lobbying efforts—constituting the world's largest collection of PFAS industry documents to date (The Forever Lobbying Project, 2025).

2. DOCUMENTING THE LOBBYING CAMPAIGN

The lobbying effort against PFAS restriction has been particularly intensive in the fluoropolymer sector. Fluoropolymers, including well-known products like Teflon, represent a lucrative segment of PFAS manufacturing. Industry actors, led by Plastics Europe and its Fluoropolymer Product Group (FPG), have coordinated a systematic campaign to secure exemptions for fluoropolymers from any comprehensive ban (The Forever Lobbying Project, 2025).

These 14,000+ documents, obtained through extensive Freedom of Information requests across European institutions and member states, reveal how industry arguments have circulated through European policy networks—from corporate boardrooms to the European Commission, and onward to national governments in Germany, Sweden, Belgium, and beyond (The Forever Lobbying Project, 2025).

To assess the credibility of these arguments, the investigation developed a "stress test" methodology in collaboration with researchers at the University of Bristol specializing in corporate influence. Applied to 1,178 lobbying arguments from the plastics sector, this systematic evaluation revealed a troubling pattern: many of the industry's key claims rest on questionable foundations (The Forever Lobbying Project, 2025).

Three pillars support the industry's case for exemptions: scientific claims, assertions of technical necessity, and predictions of economic catastrophe. Each deserves scrutiny.

3. THREE PILLARS OF INDUSTRY ARGUMENTATION

3.1 Scientific Claims: The Case of Non-Existent Criteria

A cornerstone of the fluoropolymer industry's scientific argumentation revolves around the concept of "Polymers

Managing editors:
George Varghese, Maria Pettersson and Christian Zafiu
email: gkv@nitc.ac.in, maria.pettersson@ltu.se, christian.zafiu@boku.ac.at

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of Low Concern" (PLC)—the claim that fluoropolymers' large molecular size prevents them from penetrating cell membranes and causing biological harm, thus rendering them safe despite their PFAS composition. In 997 instances across their lobbying documents, industry actors invoke "PLC criteria established by the OECD" to justify excluding fluoropolymers from the proposed ban (The Forever Lobbying Project, 2025). They cite two scientific articles as their foundation for this claim (Henry et al., 2018; Korzeniowski et al., 2023).

However, when the Forever Lobbying Project contacted the Organisation for Economic Co-operation and Development (OECD) directly, the response was unequivocal: "No agreed-upon set of criteria at the OECD level was finalized" (The Forever Lobbying Project, 2025). While OECD has convened expert meetings to discuss potential PLC criteria since 1993, these have received limited uptake in regulatory frameworks, and no harmonized international standard has been established (OECD, 2024). The PLC criteria, referenced nearly a thousand times in industry submissions, do not exist as an official OECD standard.

Further examination of the two cited scientific articles reveals significant conflicts of interest. All co-authors of both studies are either employees of or consultants to major fluoropolymer manufacturers including 3M, Chemours, DuPont, Arkema, and Solvay. The lead author of one study, Stephen H. Korzeniowski, worked for 37.5 years at DuPont before establishing Beachedge Consulting, which according to its website provides "advocacy work" for DuPont and its lobby organizations (The Forever Lobbying Project, 2025). Independent researchers have raised serious concerns about the scientific validity of treating fluoropolymers as low concern, pointing to pollution from production, emissions during use, and persistent contamination (Lohmann et al., 2020).

The pattern here follows a familiar playbook. Cite industry-funded research with conflicts of interest as though it represents independent science. What matters is not winning the scientific debate—that battle has already been lost. Rather, the strategy aims to manufacture just enough doubt to delay regulation for another few years, and then a few more after that, until companies have extracted every last profitable year of production while leaving society to bear the consequences.

3.2 Technical Necessity Claims: The "No Alternative" Narrative

The second pillar of industry argumentation centers on technical indispensability. Industry actors claim that fluoropolymers are irreplaceable for critical applications in the green transition, digitalization, medical technology, and Europe's strategic autonomy. The Forever Lobbying Project collected 525 such "no alternative" claims from industry submissions. However, only 134 of these contained sufficient technical detail to permit verification. In collaboration with Stockholm University researchers, the investigation tested these claims against the Alternative Assessment Database developed within the EU-funded ZeroPM project. The results showed that for nearly two-thirds of the 134 verifiable cases, potential alternatives exist (The Forever Lobbying Project, 2025; Figuière et al., 2025).

Perhaps most revealing is the temporal dimension of this argument. The investigation uncovered documents showing that the US Fluoropolymer Manufacturers Group deployed virtually identical "critical applications" arguments as early as 2000, citing aerospace, automobiles, semiconductors, and medical devices as sectors requiring continued PFAS use to justify delaying regulation. Twenty-five years later, the same list appears in contemporary lobbying documents, raising questions about the industry's investment in alternative development. As researcher Romain Figuière observes, "It seems they spend the money to slow down the process instead of spending [it] on investing in finding alternatives" (The Forever Lobbying Project, 2025).

The timeline reveals the scale of this delay. From the year 2000 to today spans a quarter-century. Factor in the regulatory process—another five to ten years before any restriction takes effect—followed by transition periods extending up to twelve years for applications like medical devices. The calculation is striking. The industry will have enjoyed nearly fifty years of continued production since it first deployed these arguments. This extended timeframe suggests that the strategy has been less about finding alternatives and more about prolonging the status quo for a chemical class whose risks were already apparent at the turn of the millennium.

3.3 Economic Impact Predictions: A History of Overestimation

The third pillar involves dire predictions of an economic catastrophe. According to industry warnings, PFAS restrictions will trigger sectoral collapse, frozen investments, supply chain disruption, and mass unemployment. Historical precedent suggests caution in accepting such predictions. During the REACH debates in the mid-2000s, the chemical industry predicted catastrophic economic losses of €20-30 billion. The actual costs proved to be €3 billion—barely above the Commission's projections and a fraction of industry's exaggerated forecasts (The Forever Lobbying Project, 2025; ChemSec, 2019).

The foundation of these economic warnings is shaky at best. Industry-commissioned impact assessments openly acknowledge that their figures rest on assumptions, incomplete data, and significant methodological limitations (Ricardo Energy & Environment, 2023). Even basic figures prove elusive. They failed to provide consistent employment numbers for fluoropolymer manufacturing, offering only a vague estimate of fewer than 5,000 workers across Europe (The Forever Lobbying Project, 2025).

What industry systematically ignores, however, are the economic benefits of restriction. Healthcare costs alone from PFAS exposure reach €52-84 billion annually across Europe, according to calculations by the Nordic Council of Ministers (Nordic Council of Ministers, 2019:14). The remediation bill—if contamination continues unchecked—will total €2 trillion over two decades, or €100 billion per year (The Forever Lobbying Project, 2025).

These costs do not appear in industry's economic models, and their absence represents a deliberate methodological choice rather than mere oversight. By excluding the costs borne by healthcare systems, communities, and future generations, industry presents a fiction: that restriction is expensive and inaction is free.

4. THE MECHANISM OF INFLUENCE: OWNING THE LANGUAGE

The effectiveness of lobbying is perhaps most visible not in the arguments themselves but in how they have penetrated official policy discourse. According to the Forever Lobbying Project's investigation, in April 2024, European Commission President Ursula von der Leyen wrote to industry representatives: "PFAS are currently needed for critical applications for the green and digital transitions and for the EU's strategic autonomy […]" (cited at the Forever Lobbying Project, 2025). This language is not coincidental. "Green transition", "digital transition", "strategic autonomy", and "critical applications" appear both in industry lobbying arguments and in the Commission President's official correspondence—suggesting successful penetration of industry framing into policy discourse.

This phenomenon reflects what scholars of regulatory capture describe as "cultural capture"—the process by which regulators come to see the world through "shared but not explicitly stated understandings […]" (Kwak, 2014:79) provided by regulated industries. Successful lobbying is not simply about financial influence or direct corruption; it involves shaping the terms of debate, defining what counts as "realistic," and determining which questions are considered relevant. Through these mechanisms, regulators become susceptible to pressures that emerge from the administrative process itself, ultimately producing regulatory outcomes that serve industry interests (Kwak, 2014:76-79; see also Chesterfield et al. 2025).

The tactics documented by the Forever Lobbying Project follow a well-established playbook. The plastics industry has adopted influence strategies previously deployed to defend tobacco, fossil fuels, and other controversial chemicals like Monsanto's glyphosate. The project calls this the work of "Merchants of Doubt", who have now polluted the public debate on PFAS (The Forever Lobbying Project, 2025). When von der Leyen's correspondence mirrors industry talking points so precisely, cultural capture has moved beyond theory into documented practice. The fundamental question—whether to ban these persistent pollutants—has been quietly replaced by a narrower debate about transition timelines and exemption criteria, as if the necessity of continued PFAS use were already settled fact rather than an industry assertion requiring scrutiny.

5. TOWARD EVIDENCE-BASED POLICY

The Forever Lobbying Project's investigation reveals a systematic gap between industry claims and verifiable evidence in three critical domains: the scientific basis for exemptions, the technical necessity of continued PFAS use, and the economic consequences of restriction. Addressing this gap requires structural changes to how evidence is evaluated in regulatory processes.

First, the burden of proof must rest squarely on industry. Claims about the safety, necessity, or irreplaceability of chemical substances should be supported by independent scientific research, not industry-funded studies with undisclosed conflicts of interest. When authoritative bodies like the OECD confirm that cited criteria do not exist, this should trigger immediate scrutiny of all arguments dependent on those criteria. ECHA should establish a mandatory pre-registration system requiring industry applicants seeking exemptions to submit all supporting studies for independent peer review before exemption applications are formally considered. This mechanism could build upon REACH's existing registration requirements by adding a verification stage where claimed scientific criteria must be validated against established databases and peer-reviewed literature before entering regulatory deliberations. Industry submissions citing non-peer-reviewed or proprietary research should be assigned lower evidentiary weight in ECHA's risk assessment committees unless the underlying data and methodologies are made publicly available for independent verification.

Second, transparency in policymaking must be enhanced. Freedom of Information requests should not be necessary to reveal that non-existent scientific criteria have dominated regulatory debates for years. All meetings between industry representatives and policymakers, all submitted documents, and all lobbying arguments should be proactively published and easily accessible to researchers, civil society, and affected communities. The European Commission should expand its Transparency Register to require real-time disclosure of all technical submissions and position papers submitted during REACH restriction processes, with a centralized public database modeled on the U.S. FDA's docket system. Member States should mandate that national authorities participating in REACH committees publish meeting minutes, stakeholder submissions, and voting records within a reasonable timeframe of each session.

Third, regulatory impact assessments must account for the full social costs of inaction. When industry calculates potential losses from regulation while ignoring €52-84 billion in annual healthcare costs and €2 trillion in long-term remediation expenses, the economic analysis is fundamentally incomplete. Comprehensive cost-benefit analysis must include environmental and health externalities currently borne by society rather than producers. The Commission's Better Regulation guidelines should be amended to require that all REACH restriction proposals include mandatory health impact assessments and environmental remediation cost projections prepared by independent economic consultants rather than industry-commissioned studies. These assessments should employ the "polluter pays" principle embedded in Article 191(2) TFEU by calculating the net present value of long-term contamination costs and assigning them to the regulatory scenario that permits continued use. ECHA's Socio-Economic Analysis Committee should be required to commission independent economic analyses as a standard practice for major re-

striction proposals, ensuring that regulatory decisions rest on balanced economic evidence rather than uncontested industry projections.

6. CONCLUDING REMARKS

PFAS regulation raises questions that extend far beyond chemicals policy, touching fundamental issues about how democratic societies evaluate evidence, allocate environmental burdens, and protect public health against well-resourced opposition. The Forever Lobbying Project has provided an unprecedented documentary foundation for understanding industry influence in this domain. Whether policymakers will use it to critically evaluate industry claims and resist cultural capture as the EU moves toward a final decision remains uncertain.

At stake is the question of who will bear the costs of PFAS contamination—the polluters or society at large. This is not simply a matter of distributing €2 trillion in long-term expenses. It is a test of whether evidence-based policy can withstand systematic campaigns of manufactured doubt when those campaigns are well-resourced and strategically sophisticated. The integrity of European policymaking depends on finding an answer that insulates regulatory decisions from the forms of influence this investigation has documented. What happens with PFAS will define not only the future of chemicals regulation but the resilience of evidence-based governance itself.

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